

one unitary piece. However, some of the best material from a wear standpoint for lining the cylinder have the poor heat transfer characteristics or, in other words, have a high heat transfer resistance and therefore cannot be used. Also, the hoop stress that exists in the aluminum engine block, which is a result of an interference fit liner, can lead to high residual stresses in the engine block. To compensate for the residual stress within the engine block, the dimensioning of the engine block and the liner may be enlarged. The enlargement of the liner or the engine block adds to the weight of the engine block and works against the desired goal of increased fuel economy. --

On page 13, please amend the paragraph starting at line 5 and ending at line 15 to read as follows:

-- Depending upon factors such as the flow velocity, the diameter of the constriction, gas viscosity and mass density, particle size, and the initial radial position of the solid particle, different degrees of focusing will occur. This subcritical velocity focusing can be further improved by using multiple constrictions in series to progressively move the particles closer to the central axis. Thus, with the aerodynamically focused powder stream and with the supersonic nozzle held at an angle, with respect to a line parallel to the local surface, of about 30° , maximum impact and control can be obtained. --

IN THE CLAIMS

Please cancel claims ~~5~~ and 8.

Please amend claims 1, 6 and 7 as follows:

1. A method of lining a cylinder bore of a reciprocating piston internal combustion engine aluminum engine block comprising:
spraying said cylinder bore with a gas-dynamic cold spray to coat said cylinder bore with a lining material differing from a material of said engine block, said spray coming from a nozzle having up and down relative movement with said engine block, and said nozzle being at an angle at 30° plus or minus 15° with a surface of said cylinder bore.

6. A method as described in claim 1, wherein said nozzle is translated up and down through said cylinder bore.